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Olivia Lucas
College of William and Mary

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Creating Time: Rhythmic Processes and Metrical Forming in Schoenberg's Opus 22, *Vier Orchesterlieder*

Introduction: Rhythmic Intuition and Metrical Forming

The discipline of music theory has expanded tremendously in the last century, and an increased emphasis has been placed on questions regarding the extent to which music theory is able to capture and explain musical events, especially in terms of music's inherent temporality. Therefore, before turning our attention to the analysis of Schoenberg's Opus 22, *Vier Orchesterlieder*, it will be necessary to examine issues surrounding our understanding of meter and rhythm, and what they mean for theoretical analysis.

Music theory takes great pride in its ability to take apart musical events, define them, assign them functions, describe their relationships to other events, working from the ground up until an entire work is analyzed and understood. The resulting conceptions of music and its workings are highly specialized, specific and categorizable along lines of genre, history, and locale. Music theory defines musical forms, and labels extant music accordingly. When boundaries are broken, new forms are defined. Conversely, composer-theorists have generated musical-theoretical constructs to be used as compositional tools. In short, much of what bears the label "music theory" consists of the formation of analytical constructs and the application of these constructs. Such treatment of music, or as is more often the case, of scores, is useful as a pedagogical tool, and simplifies the inherently messy and complicated portions of the experience of listening to music.

The messiness, nebulosity, conflict and tension of immediate musical *experience* are what we tend to lose in this kind of formal analysis. While it is improbable, or nearly impossible to

hear in a performance every analytical marking that could or has been made on the piece's score, it is highly probable that the experience of listening to the piece will reveal something new, and reveal it differently to every listener. This division between analytical precision and the uniqueness of each listening experience defines the gulf between music theory and the aesthetic experience of music itself.

One particularly powerful example of a musical issue in which the theoretical construct and the experientially intuited organization have been strictly divided is the case of meter vs. rhythm. Throughout the history of music theory, meter has been

a grid for the correct disposition of durations...a rule that will determine the order of pulses and their subdivision...While bars may vary in the durations they contain, each bar is metrically identical to all the others. Indeed, such homogeneity has been regarded as an essential characteristic of meter and that characteristic which most clearly distinguishes meter from rhythm.¹

In terms of usage and application, meter has been associated with:

- Periodicity, regularity
- Cycle, homogenous flow
- Structure, form
- Being a receptacle for musical events
- Notational grid²

Rhythm, on the other hand is considered the “felt order in experience”³ and is associated with:

- Process, experience
- Indeterminacy of an ongoing musical event
- Playing with or against meter
- Ebb and flow, tension and relaxation

¹ Hasty, Christopher F. *Meter as Rhythm*. (New York: Oxford, 1997), pp. 5

² Ibid, pp. 4-5

³ Ibid, pp. 3

- Both spontaneity and regularity
- Particularity of the event
- Freedom, creation of the new⁴

Thus opposed, meter has existed as music theory's explanation and measurement of rhythm; rhythm may reinforce or subvert a given metrical pattern, and in this way fills in or breaks meter's form.⁵

This division between rhythm and meter has had significant consequences for the ways in which we conceive of the temporal in music. Meter, as the formal, quantifiable and homogeneous aspect of musical time is viewed as both necessary to musicianship and as something which good musicians transcend; while one can play "too metrically," one cannot play "too rhythmically."⁶ Additionally, the use of meter in analyzing and grasping at a musical experience means that it represents a form for a uniformly flowing time, which acts as a "receptacle for events" which occur at durationless instants analogous to mathematical points.⁷ In other words, the abstract, cyclic and pure form of meter may be filled by rhythmic actualizations.⁸ Thus it is the metrical alone, without regard for rhythmic inflection, which is typically submitted to theoretical analysis.

This ontological division of rhythm and meter remains the dominant and standard approach, as typified by the work of Justin London in *Hearing in Time*.⁹ For London, meter is a kind of cognitive entrainment and behavioral habit.¹⁰ His is a psychological approach that examines meter as the method by which we seek out the most "salient temporal locations for events."¹¹ While his 'many meters' hypothesis allows for a greater variety in metrical patterns

⁴ Ibid, pp. 4-5

⁵ Ibid, pp. 4

⁶ Ibid, pp. 5

⁷ Ibid, pp. 7

⁸ Ibid, pp. 5

⁹ London, Justin. (Oxford: Oxford University, 2004)

¹⁰ London, pp. 6

¹¹ Ibid, pp. 14

than are strictly defined by a taxonomy of time signatures, in the end he maintains a time-continuous (rather than time-discrete) model into which rhythmic events are deposited.¹²

Our experience of music is always an experience of a particular piece or performance. We do not encounter “generic 4/4” or even “4/4 at a tempo of quarter-note = 120” but a pattern of timing and dynamics that is particular to the piece, the performer and the musical style. Therefore...we must move beyond a theory of tempo-metrical types to a metrical representation that involves particular timing relationships and their absolute values in a hierarchically related set of metric cycles. While these patterns of timing and dynamics may be highly particularized, they are not unique; they are replicable (i.e., when a performer plays the same piece on different occasions these same patterns tend to recur) and also transferable (i.e., when a performer plays a different piece in the same style and with some of the same structural aspects, they may be redeployed.)¹³

While he embraces a greater degree of metric particularity and variance, London remains unable to circumvent the cognitive in music perception. Meter remains external to the music itself, as a structure given in the cognitive process.

Recently, efforts have been made toward a theory of music that does not eliminate aesthetic experience and the undeniable holistic affect of music, but rather incorporates it, and even emphasizes it in analysis. The risk involved in such an undertaking is immense. Introducing individual experience into musical analysis necessitates uncertainly, feeling and intuition. However, if opening the experience of music to theoretical analysis is successful, what is lost in stability and uniformity will be gained in unlocking the fragility of music’s unfolding and forming in time.

The necessity of breaking down reality and experience into digestible and definable packages that can be easily explained and communicated, as is the case with musical meter, is central to the discussion of intuition in Henri Bergson’s *Matter and Memory*.¹⁴

¹² Ibid, pp. 19, 21

¹³ Ibid, pp. 159

¹⁴ Bergson, Henri. *Matter and Memory*. Trans. Nancy Margaret Paul and W. Scott Palmer. (Mineola, NY: Dover, 2004)

That which is commonly called a *fact* is not reality as it appears to immediate intuition, but an adaptation of the real to the interests of practice and to the exigencies of social life. Pure intuition, external or internal, is that of an undivided continuity. We break up this continuity into elements laid side by side, which correspond in the one case to distinct *words*, in the other to independent *objects*. But, just because we have broken the unity of our original intuition, we feel ourselves obliged to establish between the severed terms a bond which can only then be external and superadded. For the living unity, which was one with the internal continuity, we substitute the factitious unity of an empty diagram as lifeless as the parts which it holds together.¹⁵

In Bergson's view, in breaking up experience and binding it to "words" and "objects," we irrevocably distance ourselves from our intuitions, and in trying to reconnect them with the internal, end up with only the bonds of the intellect, which weaves a convincing pattern of interconnected thoughts and ideas. However, this mental unity only reinforces the divide between intellect, and the deeper, intensely immediate current of living intuition. The analytical breaking up of musical experience into uniform metrical units is exactly this process of binding reality to the intellect, in which rhythm becomes an externalized and superadded feature.

Given this difficulty, if we are to arrive at an understanding of musical rhythm that accesses the indeterminacy of lived experience, a Bergsonian view suggests we must first leave behind the intellectually imposed boundaries of homogeneous space and time, which are

neither properties of things nor essential conditions of our faculty of knowing them; they express in an abstract form, the double work of solidification and of division which we effect on the moving continuity of the real in order to obtain there a fulcrum for our action...to introduce into it real changes.¹⁶

Binding perceived durations and the felt experience of time's flow to a uniform and universal medium results in a view of periodic time as sterile and perpetually replicable, which despite its usefulness for analytic inquiry is distant from the ways in which we actually experience life temporally. Our everyday living is an unfolding process of a multiplicity of durations for which we have grown used to substituting homogeneous time. In the course of a few moments, one may

¹⁵ Bergson, pp. 239

¹⁶ Ibid, pp. 280

dream through months and years; these are vast, complex durations of different degrees of tensivity, qualitatively varied, but both lived and felt.¹⁷ Bergson insists that, “there is no one rhythm of duration; it is possible to imagine many different rhythms, which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness...”¹⁸ In intuiting the tensing and relaxing of the durations that make up experience, we hold within us an understanding of the vibrancy of life that goes beyond abstract formulation.

The rhythms of duration in music are a subspecies of the infinite rhythms of experience. In opening ourselves to music as indeterminate process, we are enabled to hear rhythmic forming arise organically at various levels as durational relationships develop, tense and relax.

With these philosophical issues in mind, we turn now to Arnold Schoenberg’s Opus 22, *Vier Orchesterlieder*, composed in 1915. This work forms part of his early exploration of atonality, before the emergence of his 12-tone technique. Overshadowed by the immense success of his Opus 21, *Pierrot Lunaire*, these songs remained relatively unperformed and unstudied, but are nonetheless prime examples of the rich complexity for which his music is known. As with much of Schoenberg’s music, rhythmic analysis of these pieces is quite challenging; notated metrical divisions often seem arbitrary or even irrelevant. The composer himself commented about this work, “I know that these songs do not dispense with logic – but I cannot prove it.”¹⁹ I suggest that this notational ambiguity makes an analysis based on the intuition of durational

¹⁷ Ibid, pp. 275

¹⁸ Ibid, pp. 275

¹⁹ “Analysis of the Four Orchestral Songs, Opus 22.” Arnold Schoenberg. *Perspectives on Schoenberg and Stravinsky*. Ed. Benjamin Boretz and Edward T. Cone. (Princeton: Princeton University, 1968), pp. 39. Schoenberg’s 1932 lecture offers analytical glimpses at each of the four songs, usually restricting the focus to the use or development of a single motif. For additional more conventional analyses of these songs, see: “Schoenberg’s (and Rilke’s) ‘Alle, Welche dich Suchen.’” Robert Falck. *Perspectives of New Music*. Vol. 12, No. 1, Autumn 1973 – Summer 1974. pp. 87-98. “Schoenberg’s Premonition, Op. 22, No. 4, in Retrospect.” Jonathan M. Dunsby. *Journal of the Arnold Schoenberg Institute*. Vol. 1, No. 3, 1977.

relationships a fruitful way to access the “logic” of intricate relationships that might otherwise remain hidden.

To better understand the rhythmic processes of these songs, I will use the approach taken by Christopher Hasty in his book, *Meter as Rhythm*. Hasty provides a theory of rhythm as a “projective process” that unfolds and forms itself in the real experience of listening to music.²⁰ This projection is “the potential of a past and completed durational quantity being taken as especially relevant for the becoming of a present event.”²¹ This relevance is the formation of durational relationships, which grow into larger rhythmic ones. The perception of metrical rhythms in music is based on the experience and projection of durational spans as they form into patterns of strong and weak beats. A weak, or unaccented beat is the result of a prolongation of the mensural potential of an earlier beginning: “if the earlier beginning is still “present” and active – this new beginning will be unaccented and “not-beginning” in relation to the larger event that has already begun and continues to be in the process of becoming.”²² The emergence of a sense of strong and weak occurs not only on a note by note level, but also at the level of groups of notes, phrases and even in the context of the entire piece.²³ This relative strength or weakness of notes and phrases is what generates a piece of music’s overall rhythmic profile, energy and breath. While Hasty’s theory proposes a much more diverse array of temporal qualities, I have singled out this idea as it is particularly useful to the analysis of Schoenberg’s Opus 22.

In analyzing the rhythmic processes of music through the perception of series of strong and weak beats, it is important to keep in mind Hasty’s contextualization of this process. He writes that while “strong” and “weak” beats have been viewed as permanent relationships external to the music’s occurrence, they are in fact intuitions based on internal relationships.

²⁰ Hasty, pp. ix-x

²¹ Ibid, pp. 84

²² Ibid, pp. 104

²³ Ibid, pp. 114-115

There can be no first or “strong” beat until a second beat begins and make the first “presently” past; a weak beat can only be felt as such if it is a continuation of a previously begun duration.²⁴

The decision to label the second beat \ [weak] rather than | [strong] is not made by comparing two given beats; it is made in response to a feeling that this articulation continues a process initiated with the beginning of the first sound, and that with the second sound, the duration previously begun is still present, active, and expanding. Two equal beats are not given at the outset; they are formed through a process that itself generates the metrical qualities we call strong and weak (or beginning and continuation), and these qualities cannot be added to the products or detached from the process.²⁵

As the layers of beginnings and projections increase, a hierarchy of strong and weak beats may develop, which may be the larger rhythmic processes of the measure, phrase, etc. However, this hierarchy cannot be given from the outset; it is a projected, qualitative “forming” that occurs and develops over time. Furthermore, rhythmic units cannot be “given,” but are “created under the pressure of antecedent events and are creative for present and future events.”²⁶ Therefore, while we may consider the “results” or “products” of metric processes, we may not examine these resultant units without regard to their relational relevancies.²⁷

The importance of the distinction between strong and weak lies in the connection of musical analysis to the process of music as it unfolds and becomes actualized. Because the relationship between beats is not abstract and external, but internal, intuitive and dependent, they cannot simply be deduced from the study of a score or other spatialized representation of musical events. Instead, they must be understood through careful listening and performative interpretation. This method of analysis based on active listening does not externalize a dominant pulse, but rather intuitively internal relationships as they occur, allowing processes to be analyzed moment by moment.

²⁴ Hasty, pp. 105

²⁵ Ibid, pp. 105

²⁶ Hasty, pp. 106

²⁷ Ibid, pp. 106

Here, London would contend that while “our experience of musical processes is in essence a tensed one, it does not mean that tenseless accounts necessarily distort or misrepresent those processes. This is expressly the case when it is the replicable aspects of that process...that the tenseless description aims to capture.”²⁸ For him, meter remains a cyclic Gestalt, a form filled by rhythm, which is cognitively processed by the listener’s individual metric behavior. “‘When’ an event happens is separable from the event itself,”²⁹ and actual rhythmic events confirm the temporal locations known “prospectively” through entrainment.³⁰

London also takes issue with Hasty’s fusion of meter and rhythm on the grounds that, “While it is true that some rhythmic patterns engender metric behaviors while others do not, this does not make meter itself a subspecies of rhythm.”³¹ In making meter a product of rhythmic process rather than a form or behavior, the potential for metrical formation is extended to music that London would necessarily find ametrical. Much of 20th century music, including the Schoenberg pieces I will examine, exhibits rhythmic qualities that are very difficult to capture in the usual metrical terms. They “lack the kinds of temporal invariances that meter normatively is presumed to capture.”³² Indeed, in giving intuition primacy over cognition and entrainment in rhythmic understanding, Hasty opens the realms of metricality to a much wider variety of musical events.

In the spirit of Bergson’s “living intuition,” we approach music less as readers of a score and purveyors of the abstract, and more like performers and active participants in a process. Rather than constructing ideas about the piece’s structure and internal relationships from a

²⁸ “Hasty’s Dichotomy.” Justin London. *Music Theory Spectrum*, Vol. 21, No. 2. (Autumn, 1999), pp. 260-274. pp. 271

²⁹ Ibid, pp. 271

³⁰ Ibid, pp. 272

³¹ Ibid, pp. 271

³² Ibid, pp. 274

comfortable distance, we discover the pieces as presently active listeners, hearing first the large phrases, and eventually discovering its most subtle movements. We learn where the music breathes, how it tenses and relaxes, and the pace of its ebb and flow, and thereby discover from intuitive aesthetic experience before intellectual conceptualization. Christopher Hasty's work has provided an elegant framework within which to conduct this sort of rhythmic analysis, and with it we can begin to explore the metrical richness of extremely complex rhythmic events, such as are found in *Vier Orchesterlieder*.

Rhythmic Expansion and Contraction in Schoenberg's *Alle, Welche dich Suchen*

*...Ich aber will dich begreifen
Wie dich die Erde begreift...*

*(...But I wish to conceive of you
As does the earth...)*

The subtle rhythmic shadings of *Alle, Welche dich Suchen*³³ evade the grasp of a metricality based in replicable form, just as the poet's God cannot be bound to "image and gesture" (*Bild und Gebärde*). Therefore, we must approach the piece with the living intuition of the "ripening realm" (*Reift dein Reich*). The high level of projective and differentiative forming and complexity present in this piece arises out of its rhythmic articulation, both in the vocal and orchestral parts considered alone, and in their interactions with each other. *Alle, Welche dich Suchen* creates feelings of rhythmic expansion and contraction through the manipulation of the rhythmic groupings of the vocal line, and through the juxtaposition of these patterns either in

³³ From Rilke's *Stundenbuch*, 1901. The text and translation (Anita Burrows and Joanna Macy) are as follows:

Alle, welche dich suchen, versuchen dich.
Und die, so dich finden, binden dich
an Bild und Gebärde.

Ich aber will dich begreifen
wie dich die Erde begreift;
mit meinem Reifen
reift
dein Reich.

Ich will von dir keine Eitelkeit,
die dich beweist.

Ich weiß, daß die Zeit
anders heißt
als du.

Tu mir kein Wunder zulieb.
Gib deinen Gesetzen recht,
die von Geschlecht zu Geschlecht
sichtbarer sind.

All who seek you tempt you
And those who find you thus bind you
To image and gesture.

But I will conceive of you
As does the earth;
With my ripening,
Ripens
Your realm.

I need from you no arrogant display,
To prove yourself.

I know that time
is different
From you.

Perform no miracles for my sake.
Be just to your laws,
Which from generation to generation
Become ever more apparent.

rhythmic congruence or incongruence with the orchestra. Movements of expansion and contraction, when engaged in movement with or against the orchestral rhythmic texture either augment, counteract or “neutralize” them³⁴.

Composed for chamber orchestra and voice, the instrumentation is as follows: 4 flutes, 1 English horn, 1 D-clarinets, 2 A-clarinets, 2 bass clarinets, 1 contrabassoon, 1 harp, 3 celli, and 1 contrabass. The poem can be divided into a succession of three main thoughts. The first three lines address how others approach God; lines 4-8 address how the poet wishes to relate to God. The remainder of the poem is a direct address expressing how the poet wishes to interact with God. The vocal line is relatively continuous in contrast to the accompaniment, a point that will become important in examining their rhythmic relationships. After a two-beat orchestral introduction, the vocal part is completely continuous, with only a few eighth rests and one quarter rest between poetic thought groups, until it ends in m. 24. This sonic continuity in the vocal line forms the foundation of the piece’s musical profile, which Schoenberg then enhances with the orchestra.

For the purpose of grouping and indicating the felt strength and weaknesses of beats, I will borrow symbols from Hasty. My indications will be as follows: | (strong), \ (weak) - / (deferral), and / (anacrusis). Slurs indicate groupings. There may be multiple levels of rhythmic interpretation; these larger groupings will be indicated by larger slurs.

Rhythmic processes in the vocal line

In examining Schoenberg’s setting of the first 3 lines of text, it becomes clear that the material for the rhythmic motives of the pieces are patterns of eighth and quarter note triplets,

³⁴ That is, a moment of expansion in the vocal line may be enhanced by similar movement in the orchestra, or a simultaneous contracting movement may have an opposing or neutralizing effect. These kinds of musical qualities are rarely read from a score, but are intuited from the vast web of interrelated changes in musical momentum.

contrasted with phrases of unaltered eighth and quarter notes. In the first six measures of the piece, the orchestral accompaniment is relatively sparse and interjection-like, making it not only possible but necessary to examine the rhythmic process introduced by the vocal line in isolation.

The setting of the first four words of text exemplifies the rhythmic process that will unfold throughout the piece. This process can be described generally as one of exploration of the rhythmic character of “three” or “triple.” Over the course of the piece’s 25 measures, Schoenberg will unveil a multitude of ways in which the qualities of this rhythmic motion can be stretched, compressed, layered and contradicted.

Except for the second measure, the entire piece is notated in 3/4, and our first point of interest is the intersection of the first and second measures. The very beginning of the vocal line is significant in a few respects. By beginning with the subdivision in to two pairs of eighth-note triplets, the feeling of three is initially emphasized, and the setting of the first three words of the text produces a sense of two miniature triple measures (Fig. 1).

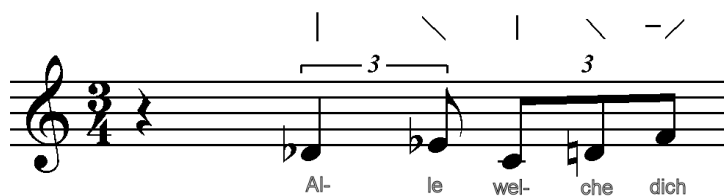


Fig. 1

A sense of pulse begins to emerge, important in light of the rhythmic ambiguity out of which it emerges, due to both the lack of clarity in the orchestra and the placement of the vocal downbeat on what is notated as a weak beat.

Out of this initial generation of a triple pulse emerges a higher level of rhythmic comprehension and expectation, based on the strong/weak relationships that emerge out of the two sets of triplets. This unfolding of “three” forms potential for three at a higher level, which

would imply another weak beat to follow the second set of triplets, thereby forming a clear process and establishing an easy-to-follow pattern for the piece. However, with as little as we have heard, the rhythmic relationships are as yet too ambiguous to make this projection any more than a possibility, as Figure 2 shows.

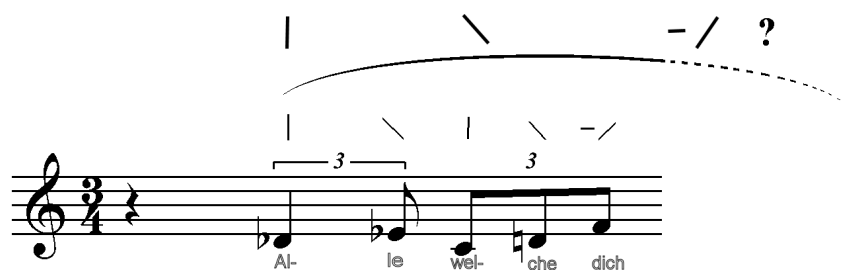


Fig. 2

However, Schoenberg counters this expectation by creating a new downbeat, achieved largely by the switch to triplets at the quarter note rather than the eighth note level (Fig. 3). The established process is slowed, and the listener is forced to re-orient his rhythmic awareness.



Fig. 3

The subsequent return to eighth note triplets in the second half of measure two closes the phrase, and with it, the exposition of the rhythmic process the song will develop and explore (Fig. 4). While it is possible to hear “ver-” as an anacrusis to this triplet, I believe that the projection generated by the quarter note triplets is strong enough to sustain the perception of deferral, even with the presence of the eighth rest. This may be due also in part to the perceptibly longer

duration of “ver-.” Another possible interpretation, which is the one I have chosen to depict in Figure 4, is that the eight rest after “suchen” forms a “virtual pulse,” completing an even triple grouping begun with the change to quarter note triplets.

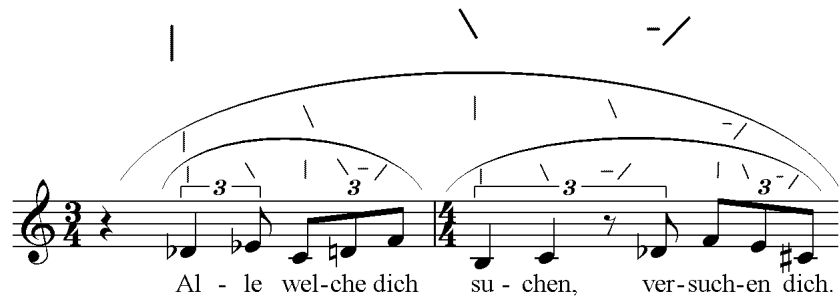


Fig. 4

By returning to the eighth note triplets, Schoenberg also adds symmetrical closure to the phrase. Also, as we will see, this motion is the first exposition of the expansion and contraction process discussed earlier. Finally, the entire phrase from “alle” to “dich” can be heard as a large downbeat, second beat and deferral, opening at yet a third level the triple grounding that will persist throughout.

As we turn our attention to the next three and a half measures, we see a similar process unfold, both reinforcing and developing the feeling of three. At the beginning of measure three, the music moves back into 3/4, but the subdivision into triplets ends, and is replaced by a series of tied quarter and eighth notes (Fig. 5).

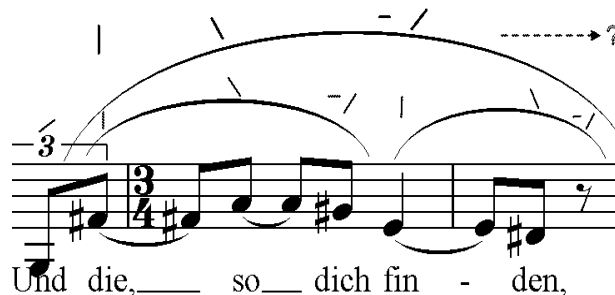


Fig. 5, m.2-4

Having established a sense of rhythmic flow based on the division into three, the next phrase can begin a much subtler exploration of the process of durational expansion, setting into motion a motif of expansion and contraction that will be explored, first primarily in the vocal line, and later through its interaction with the orchestra. The phrase (from the end of measure 2) begins with a progression from a triplet eighth tied to an eighth, to a full quarter note value to a dotted quarter note value, and back to an eighth note. The following eighth rest is easily perceived as a deferral, and a beginning of contraction. However this contraction is interrupted by “binden dich,” – another series of 2 quarter note values (Fig. 6). The eighth note on “dich” can be heard in two ways. First, it can function similarly to the eighth note at the end of “finden” and re-suggest a projection of contraction. Second, it can cast into doubt this same projection, due to its part in a series of steady quarter-note values. This latter interpretation creates a feeling of a steady pulse, reminiscent of that indicated by the opening triplets, and thereby extends, enhances and emphasizes the rhythmic process begun with the upbeat to measure three.

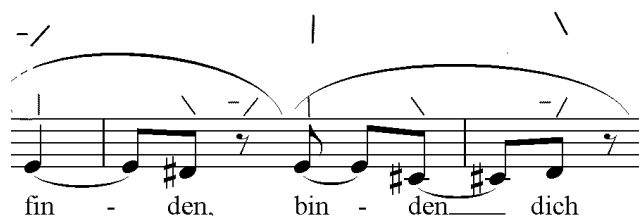


Fig. 6, m. 3-5

With the closing of the first half of measure six, the expansion of the triple grounding explored in the preceding phrase is brought to a close by the return to eighth note triplets (Fig. 7). The closure also reveals the larger rhythmic unfolding of the phrase as once again, an overall triple relationship. The mirror-image relationship of the last two sets of triplets with those that

open the piece gives these opening measures a striking clarity and balance, reorienting the listener and dispelling ambiguity.

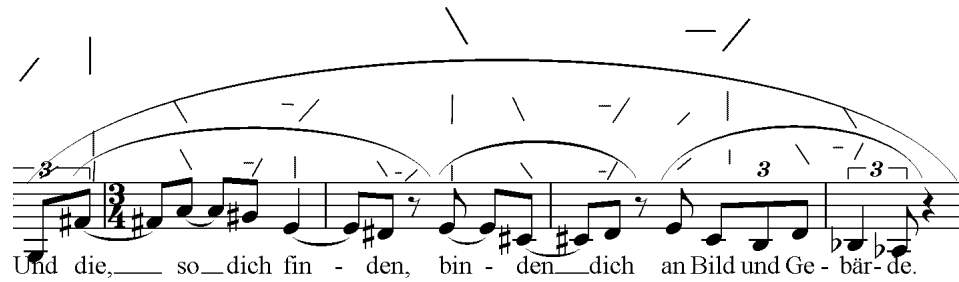


Fig. 7, m. 2-6

We can now examine the first six measures of the vocal line in their entirety, and see the process by which Schoenberg creates a comprehensible rhythmic unfolding of triple relationships.

Fig. 8, m. 1-6

Since the rhythmic process has been examined in terms of notational durations and relationships, it will now be helpful to examine this same segment with an eye toward the overall intuition of the pacing of the music as it unfolds. In order to grasp these rhythmic developments on a more holistic level, I have indicated the overall perception of the rhythmic relationships' forming by

means of waves and arrows, which designate the developing feelings of expansion and contraction that emerge throughout (Fig. 9).

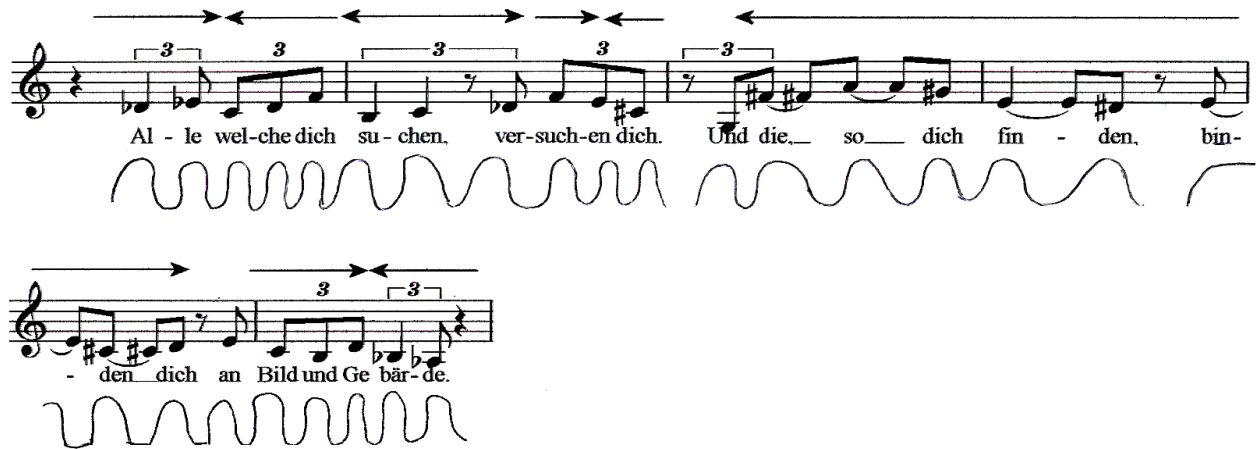


Fig. 9, m. 1-6

Expansion and Contraction in Relationship to the Orchestra

This continuous process of expansion and contraction in the vocal line establishes a manner of rhythmic expressiveness that will continue for the rest of the movement. Before we can begin to examine how this process functions throughout the rest of the piece, we must first examine the orchestral part on its own. The orchestral part to *Alle, Welche dich Suchen*, functions as an expressive and supportive accompaniment, and the orchestra is never heard without the voice for more than a beat, with the exception of the two beat anacrusic introduction to the piece and the one measure “postlude” – a seven-note sustained chord. The portion of the accompaniment corresponding to the segment of the vocal line we have taken into consideration

thus far is markedly sparse and segmented. However, this segmentation does not prevent the listener from hearing the relationships among the phrases. That is, each segmentation does not necessarily produce a new beginning; they may be heard as continuations or resumptions of paused activity. As the working of the vocal texture becomes clearer, the orchestral accompaniment grows more adventurous, and beginning with the pickup to measure 8 may be perceived as continuous.

The orchestral introduction seems to function not as the downbeat, but rather as an upbeat, or breath, before the downbeat on “alle.” Even removing all consideration of the vocal part, the first three beats of the orchestra’s music still rhythmically defer or point to a stronger, consequent phrase in m. 2 (Fig. 10).



Fig. 10, m. 1-2

The inhalation-like quality of the opening 3 beats is undoubtedly emphasized by the rising thirds in the bass, which push off the eighth notes into a musical question mark. This question is answered in the next measure, as the treble continues the descent it had already begun, now emboldened by the swelling of the vocal phrase. This opening is an example of how a pause between two phrases does not necessarily separate them in terms of rhythmic continuity. While

the note-to-note relationships inside each of these 3 beat phrases may create complete units independently, here the quarter note rest seems to emphasize their continuity and relative rhythmic stability and strength.

While in the previous example, the stronger beats in the orchestral part do match up with the downbeats of the vocal line, this is not the case in many areas of the piece. However, the overall patternings of the two are similar in both the prevalence of the rhythmic intuition of “three” and the feelings of expansion and contraction. In contrast to the vocal part, the orchestral rarely employs the use of triplets, but through variations in texture and segmentation, still achieves a high level of variance in the level of expansion in the orchestral phrases. Compare, for example, the orchestral music in m. 9-10 to that of m. 17-19.

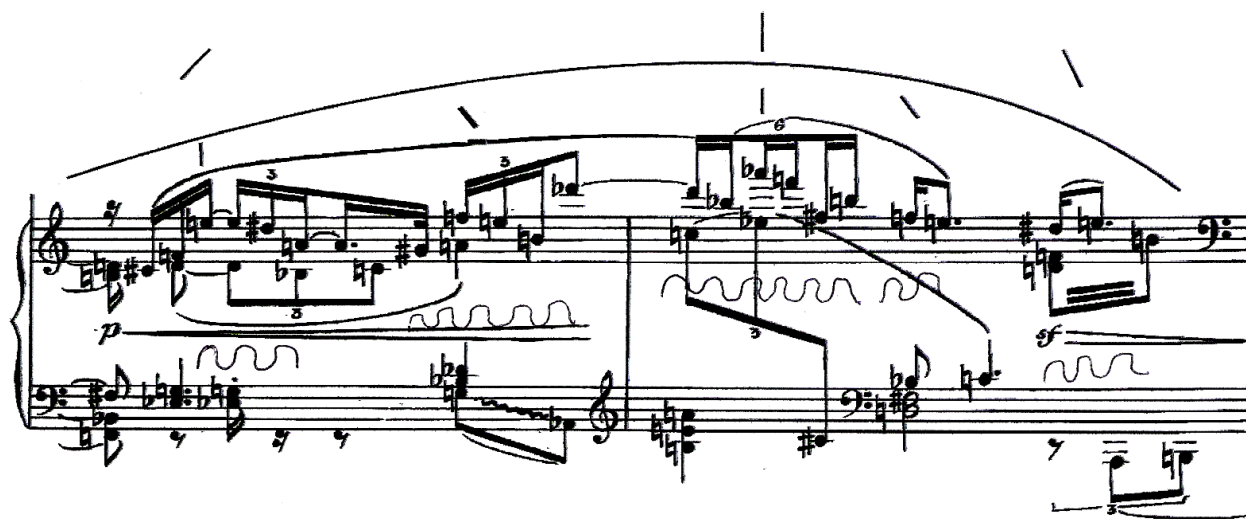


Fig. 11, m. 9-10

In the former (Fig. 11), the sudden feeling of acceleration produced by the prominence of a rapid succession of small note values causes a sense of contraction by two means. First, the complexity and relative rapidity of the notes' durations makes the overall movement of the phrase seem faster. Second, complexity and asymmetry of the rhythmic values makes it difficult

to distinguish clear feelings of strong and weak, and so the mind tends to simply perceive the two measures as a single musical event, ending in a point of arrival at the beginning of m. 11.

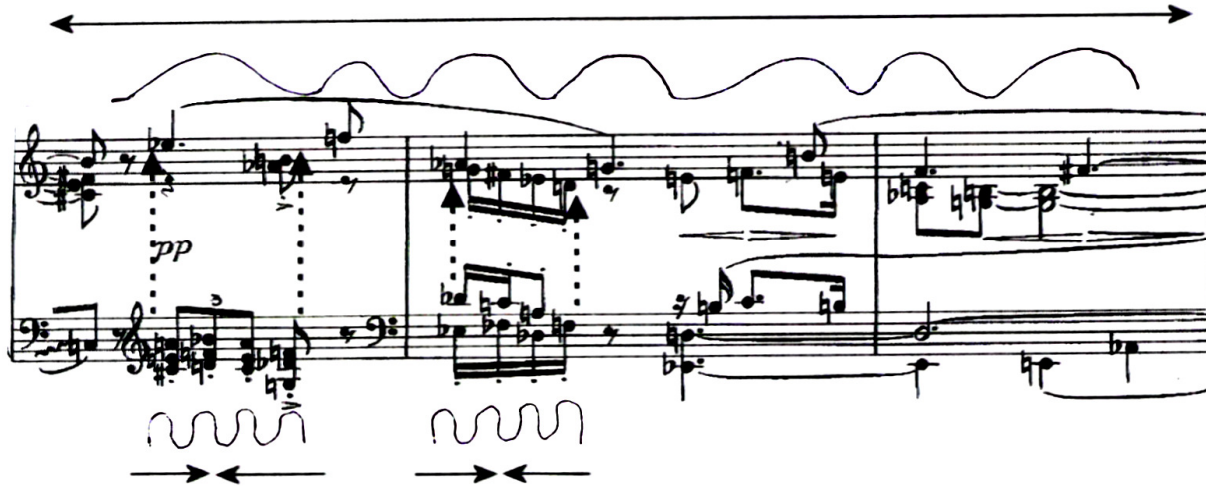


Fig. 12, m. 17-19

In measures 17-19 (Fig. 12), however, the soprano melody in the clarinet provides a clear rhythmic pattern which orients the rest of the orchestra's activity. Here, feelings of expansion are produced by a number of factors. First, the melody in the clarinet is one of the longest phrases dominated by a single instrument in the entire piece; most involve a rapid interchange of voices, rather than a long, soloistic Romantic melody. Second, in the m. 17-18, the staccato sixteenth notes in the strings emphasize the length of the durations of the clarinet part. Finally, while it is possible to divide this segment in the middle of measure 18, the sustained G-natural in the clarinet can be interpreted as both a weak beat ending the consequent to measure 17, or as an anacrusis to the following measure and a half, connecting the two and contributing to the sense of expansion.

Now that we have explored the ways in which the vocal and orchestral parts generate feelings of expansion and contraction on their own, the task that remains is to examine what

happens when the two are considered as part of the same musical process. While doing so, it will be important to bear in mind the observations that have already been made about both the vocal and orchestral rhythmic processes, especially concerning the way in which they establish expansion and contraction. The first moment we will examine will be measures 8-9, in which the rhythmic steadiness of the orchestra enhances the expansion already present in the vocal part.



Fig. 13, m. 8

The set of quarter-note triplets followed by eighth note triplets in the vocal line each form their own pattern of strong and weak beats, as well as an overall triple rhythm. This hierarchy of strong and weak, reinforced by what has been already experienced in the preceding measures of the piece, causes us to feel the rhythmic expansion in the quarter note triplets, followed by the contraction of the eighth note triplets. In looking at the orchestral texture here, m. 8 is evenly divided by the dotted quarter notes in the strings, experienced clearly as a downbeat followed by a weaker beat; there is no feeling of deferral or a second weaker beat until the beginning of m. 9, and this is felt only as a suppressed beat as the notes are tied. However, it is the descending movement of the dotted quarter notes that bisect m. 8 with which we are concerned, as they enhance the expansion of that portion of the phrase. Set against the quarter note triplets in the

voice, they move slightly before the sounding of “die,” the third note in the grouping. This makes the sounding of “die” feel slightly delayed, or even late, and thereby contributes to the feeling of expansion already present. Immediately following, the vocal part contracts in a set of eighth note triplets; the fact that there is no significant movement in the orchestra until after the beginning of the quarter note (“greift”) on the downbeat of measure 9 increases the effectiveness of the contraction. The examination of this one small moment demonstrates how the voice and orchestra work together to create intricate and complex rhythmic processes.

As a second example, we will examine the manner in which the orchestra counteracts a moment of expansion in the vocal line in m. 13-15, and then the reversal of this process in m. 16.

The image displays a musical score for measures 13-15. The top staff is the vocal line, and the bottom staff is the orchestral part, specifically the contrabass. The vocal line includes the lyrics: "Ich will von dir kei- ne Ei- . . . tel- keit". A dashed box highlights the vocal line from measure 14 to measure 15, where the word "Ei-" is held for a dotted quarter note. The orchestral part features a wavy line indicating a rhythmic movement that mirrors the vocal line's expansion and contraction. Arrows and a dashed box are used to illustrate the relationship between the vocal and orchestral parts during this moment.

Fig. 14, m. 13-15

Here, the dominant voice in the orchestral part is that of the contrabass, which imitates the rhythmic movement and pitch contour of the vocal line from the pickup to measure 14 through measure 15. Beginning with the third beat of measure 14, the vocal line expands by holding “Ei-” for the value of a dotted quarter note, which ought to be strongly felt considering the phrase’s

pattern of eighth and quarter notes. However, because the contrabass has established itself as in partnership with the vocal line in this phrase, the fact that it continues to move in steady eighth notes counteracts this expansion, resulting in an overall feeling of rhythmic evenness. Conversely, were the orchestral part taken alone, the violation of the pattern by a run of eighth notes would produce a feeling of contraction. However, because the two occur together, not just in the sense of simultaneity, but also in terms of their rhythmic and pitch contour projections, the result is a perception of steady forward motion.

In m. 16, this exact process is reversed, and the contraction in the vocal line is counteracted by the expansion in the orchestra (Fig. 15).

The image shows a musical score for measures 14-16. The top staff is the vocal line, and the bottom staves are the orchestral parts. The lyrics are: "dir kei- - ne Ei- - - - tel-keit, die dich be-weist." The score includes various musical notations such as notes, rests, and bar lines. Dashed lines and arrows are used to highlight rhythmic patterns and relationships between the vocal and orchestral parts. Specifically, arrows indicate the expansion and contraction of the vocal line and how the orchestra counteracts these changes. The key signature has two flats (B-flat and E-flat), and the time signature is 4/4.

Fig. 15, m. 14-16

In fact, the orchestra echoes the rhythm of the voice's "Eitelkeit," while the voice moves in eighth notes. Experienced in succession, this reversal of rhythmic expansion and contraction in the voice and orchestra gives the phrase an intuitive balance that pivots upon the middle of measure 15. Interestingly, the voice and orchestra strike a stronger beat together at the end of measure 16 ("-weist"), further emphasizing the feeling of reflective balance and giving the phrase a strong sense of closure.

The final example will be an examination of the climax of the movement in measure 22, and the two measures preceding it (Fig. 16). In these three measures, the combined rhythmic motion of the voice and orchestra increase the feeling of contraction present in each, helping to build feelings of tension and propulsion toward the climax on the downbeat of m. 22.

The image displays a musical score for three measures (20, 21, and 22). The top staff is the vocal line, and the bottom staves are the orchestral accompaniment. The lyrics are: "Tu mir kein Wunder zu lieb. Gib deinen Ge-set-zen recht, die von Ge-". The score includes various musical notations such as triplets, eighth notes, and sixteenth notes. Below the vocal line, there are wavy lines and arrows indicating rhythmic motion. At the bottom of the page, there are two long horizontal arrows: one solid and one dashed, both pointing to the right, with a double-headed arrow in between, suggesting a sense of forward motion or tension.

Fig. 16, m. 20-22

In measure 20, the voice is propelled most obviously by the rapid succession of 2 sets of eighth note triplets, which are particularly striking taken in the context of the preceding phrase. This contraction and acceleration is complemented by the orchestra; the downbeat of the orchestral phrase is half of a beat later than of the vocal one, but both finish at the same time. This means that the orchestral phrase, considered alone, has an even greater momentum of contraction and acceleration than does the vocal phrase, and when the two are experienced together, the measure seems to accelerate forward. It is halted and a new rhythmic system is begun only by means of the quarter note in the vocal line at the end of measure 20; the orchestra does not stop moving. In

measure 21, the downbeats of both the orchestra and voice occur simultaneously, which unifies them in their propulsion toward the intuited goal of measure 22. However, they are not yet fully unified, as the voice still moves in triplets, while the accompaniment moves in eighths and quarters. At the end of measure 21, the orchestra seems to pause, as its phrase ends on a quarter note; this time it is the voice which tumbles forward onto the downbeat of measure 22. Here, in this reversal of movement and pause or breath, we see formation of the same kind of rhythmic balance as in the previous example. The tightly wound rhythmic exchange of measures 20-21 contributes to their feeling of contraction and propulsion toward measure 22, which releases this tension; the voice and orchestra move together steadily, both in terms of rhythmic evenness and pitch contour. This unity persists through the end of the piece in measure 25.

There are numerous other examples within the piece that demonstrate the way Schoenberg uses the rhythmic interactions of the vocal and orchestral parts to push and pull on each other, resulting in felt propulsions, delays, expansions and contractions throughout the music's unfolding. However, each of these has demonstrated a slightly different technique by which these rhythmic processes are created. The high level of forming balance within each phrase contributes to the rhythmic expansion and contraction by providing a sort of central beat around which belonging extends before and after, easing the forward flow of the musical events. Perhaps most importantly, however, these intuitively comprehended rhythmic events allow the listener to understand the music as it is experienced, beyond the level of the abstract, spatialized score. In the broadest context, Schoenberg rhythmically interprets the poet's seeking in vain for God, until the moment he is found in the justice of His laws.

Corresponding Points of Interest: *Mach mich zum Wächter*

The third and fourth movements of *Vier Orchesterlieder* exhibit rhythmic qualities that, while different from those heard in *Alle, Welche dich Suchen*, form themselves through similar processes. *Mach mich zum Wächter deiner Weiten*³⁵ portrays in its first half a pattern of rhythmic “widening,” analogous to the expansion found in *Alle, Welche dich Suchen*, in that there is a persistent of duration within which beat relationships remain clear. However, the approach taken in this piece is different from the first in its handling of pulse, melodic rhythm and orchestral involvement. Where in *Alle, Welche* the consistency of the triple relationship within which the sense of pulse moved among eighth notes, quarter notes, triplets, etc., here the sense of pulse remains relatively steady, beginning with the vocal line in measure 4, and with hints of this steadiness occurring even earlier, in the orchestral introduction. Due to the slowness of the tempo, this pulse is most easily heard at the eighth note level, though it is not so slow that the quarter note level is obscured.

³⁵ From Rilke’s *Stundenbuch*, 1901. The text and translation (Bryan Simms) are as follows:

Mach mich zum Wächter deiner Weiten

Mach mich zum Wächter deiner Weiten,
mach mich zum Horchenden am Stein,
gib mir die Augen auszubreiten
auf deiner Meere Einsamsein;
lass mich der Flüsse Gang begleiten
aus dem Geschrei zu beiden Seiten
weit in den Klang der Nacht hinein.

Schick mich in deine leeren Länder,
durch die die weiten Winde gehn,
wo große Klöster wie Gewänder
um ungelebte Leben stehn.
Dort will ich mich zu Pilgern halten,
von ihren Stimmen und Gestalten
durch keinen Trug mehr abgetrennt,
und hinter einem blinden Alten
des Weges gehn, den keiner kennt.

Make me the watchman of your spaces

Make me the watchman of your expanses,
make me the listener at the stone,
give eyes to gaze across
the seclusion of your seas;
let me accompany the rivers' path
far from the cries along their banks
into the sound of the night.

Send me into your desolate lands
across those swept by distant winds,
where stand great cloisters like robes over unlivd
lives.
There I'll stay among pilgrims,
from their voices and shapes
no longer shut off by delusion,
and behind an old blind man
walk the path that no one knows.

The first moment of rhythmic widening occurs at the beginning of measure 5 (Fig. 17).

Fig. 17, m. 4-5

While it is surely no coincidence that Schoenberg chooses to extend the duration of *Weiten* (expanses) longer than any note in the melody thus far, on a larger scale this choice gives the listener cause to question the steadiness set forth in the previous measure. By creating this moment of widening, but doing so on the subtle scale of a margin of one eighth note, the listener is called to a greater rhythmic sensitivity, which will be needed when later, more dramatic widenings pose a greater challenge to the prevalent sense of pulse. The fact that the orchestra remains silent for 2 beats in the middle of the phrase is reminiscent of the fragmentary accompaniment found in *Alle, Welche dich Suchen*, but more importantly, emphasizes the eighth note pulse by first exposing it at the end of measure 4, and then re-entering on the “widening” second beat of measure 5.

Weiten's 3 eighth note duration is quickly followed by further widening on the first syllable of *Horchenden* (listener), which is held for a duration of 5 eighth notes (Fig. 18).

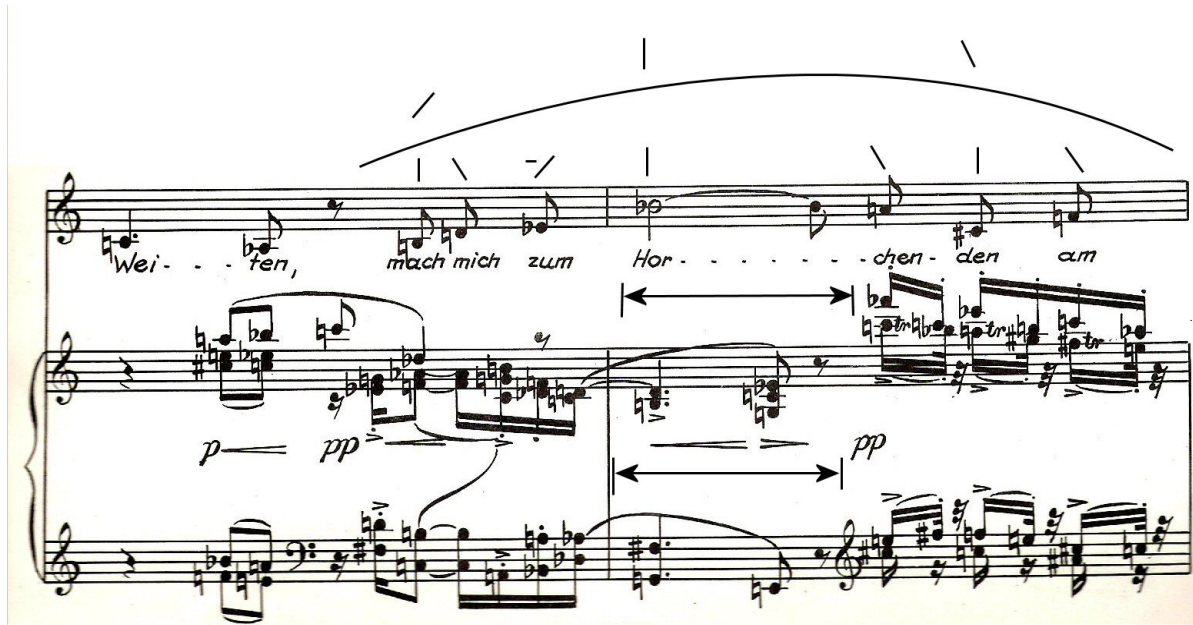


Fig. 18, m. 5-6

Here, the orchestra only drops out for half of a beat, but pauses with the vocal line, emphasizing this lengthened moment. However, the eighth notes surrounding *Horchenden* on either side, as well as the corresponding strong beats in the orchestra at the end of measure 6 prevent the listener from losing the sense of pulse. We will find that as these widenings are extended, these techniques of orchestral pausing and steady pulsating motion will be used in combination to both emphasize the extent of a widening and keep the piece in motion.

In measure 8, the third syllable of *auszubreiten* (to spread out) is held for a duration of 6 eighth notes, and the final syllable for a duration of 4, dramatically heightening the exploration of widening (Fig. 19).

The image shows a musical score for measures 7-9. The top system contains a vocal line and a piano accompaniment. The vocal line has the lyrics "Stein, gib mir die Flügel auszu-breiten" and continues in the next system with "ten auf deiner". The piano accompaniment features complex chordal textures. Dynamic markings include *p* and *pp*. In measure 9, the right hand of the piano part has an *8va* marking, indicating an octave shift. Arrows indicate the flow of the music across measures.

Fig. 19, m. 7-9

In this instance, the halting of orchestral motion is gradual, slowing to a stop at the beginning of measure 9. The orchestra remains motionless through the beginning of the next phrase, and the two are punctuated only by a chord high in the winds after “-ten.” The fact that the same chord is held into the next phrase maintains a forward momentum that might otherwise be lost in the wake of such a slowdown.

The next phrase exhibits the most dramatic widening, with the first syllables of *Meere* (seas) and *Einsamsein* (seclusion) being held for 7 beats each (14 eighth notes), surrounded on either side by quarter note values (Fig. 20).

The image displays a musical score for measures 9-12. The top system (measures 9-10) features a vocal line with lyrics "ten auf dei-ner Mee-" and a piano accompaniment. The piano part includes dynamic markings *ppsub.*, *pp*, and *p*. The bottom system (measures 11-12) features a vocal line with lyrics "re Ein-" and a piano accompaniment. The piano part includes dynamic markings *pp* and *p*. The score is written in a key signature of one sharp (F#) and a 4/4 time signature. The vocal line is in a soprano or alto register, and the piano part is in a lower register. The lyrics are in German, and the music is in a romantic style.

Fig. 20, m. 9-12

The strength of the pulse is restored in measure 10 both by the regular eighth note beats in the orchestra in the first half of the measure, as well as by the changes of pitch that occur in the voice.

These changes in pitch occur first after a quarter note value, then after half note values, creating a sense of widening within the phrase itself, as well as in relation to the previous phrases. The orchestra slows to a near halt in measure 11, and obscures the clarity of the pulse in measure 12 by a turn to interlocking triplet rhythms. This change in the orchestra, as well as the fact that the first syllable of *Einsamsein* is held for 5 beats without a change of pitch finally creates potential for a perceived breakdown in the regularity of the pulse. The piece comes to a complete halt for a duration of one eighth note at the end of measure 14, after which the second half begins with renewed energy.

Corresponding Points of Interest: *Vorgefühl*³⁶

The textural and rhythmic relationships between the vocal and orchestral parts in the *Vorgefühl* contrast remarkably with those generated in the first two songs. Here, the orchestra takes on more of a life of its own, and its gestures rarely align with the voice. Where in the first

³⁶ From Rainer Maria's *Buch der Bilder* (1902). The text and translation (Bryan Simms) are as follows:

Vorgefühl

Ich bin wie eine Fahne von Fernen umgeben.
 Ich ahne die Winde, die kommen, und muss sie leben,
 während die Dinge unten sich noch nicht rühren:
 Die Türen schliessen noch sanft, und in den Kaminen ist
 Stille;
 die Fenster zittern noch nicht, und der Staub ist noch
 schwer.

Da weiss ich die Stürme schon und bin erregt wie das
 Meer.
 Und breite mich aus und falle in mich hinein
 und werfe mich ab und bin ganz allein
 in dem grossen Sturm.

Premonition

I am like a flag surrounded by distances.
 I sense the winds, which come, and must live them,
 while things below still do not stir:
 the doors close softly, and the chimneys are still,
 the windows do not yet clatter, and the dust is heavy.

Here I already know the storms and I am whipped up
 like the sea.
 I unfurl and fall into myself
 and I throw myself off and am entirely alone
 in the great storm.

two songs the downbeats of the voice and orchestra did not necessarily line up, the orchestra is clearly being used as an enhancement to the contours of the vocal line. In *Vorgefühl* this relationship is much more fluid, and there is a frequent exchange and overlap of melodic and rhythmic phrases. These exchanges contribute to feeling of roiling unrest in the music, a fitting setting for a text about an uneasy “premonition.” While sometimes, the two will have separate phrases occurring simultaneously, often an echoing or foreshadowing relationship emerges.

For example, in measures 13-14, the vocal melody “und der Staub ist noch schwer” is echoed by a flute 2 beats behind the beginning of the vocal phrase (Fig. 21).

Fig. 21, m. 13-14

While this echoing is by no means exact in terms of either duration or pitch, the relationship remains easy to hear. The gesture is the same in that both push upward to a rhythmic and melodic climax, before quickly leaping downward and back up, with the largest melodic interval being contained in this leap. Thus the rhythmic impulse that makes “Staub” the center of the vocal phrase is echoed in flute’s first A-flat, and in both cases the rest of the phrase turns on these notes. The fact that this flute melody is the most salient feature in the orchestral texture at this moment makes their similarities even more apparent. The straining of the echoing flute, in extending the

phrase, also creates an expansion similar to that which was found in *Alle, Welche dich Suchen*. Whether this is a process of vocal projection or orchestral echoing is a matter of perspective, but the fact that their overlap does not originate at a rhythmically strong or decisive moment contributes to a sense of rhythmic unrest.

A similar process occurs in measure 19, with the off-setting of “breite mich aus” and the melody high in the strings (Fig. 22).

The image shows a musical score for measures 19 and 20. The top staff is the vocal line, with lyrics: "Und brei- - - te mich aus und fal- le in mich hin- ein". The middle staff is the violin part, and the bottom staff is the piano part. The piano part has dynamic markings: *f* (forte) at the start of measure 19, *fp* (fortissimo piano) in measure 19, and *pp* (pianissimo) in measure 20. There are red annotations: an oval around the vocal line in measure 19, and another oval around the violin part in measure 19. A red arrow points from the first oval to the second. A red bracket with the number "3" is above the vocal line in measure 19. A red double-headed arrow is above the piano part in measure 20.

Fig. 22, m. 19-20

Here, the strongest points of the phrases are a beat apart; the relationship between the phrases in this example is much more condensed. While the high E in the violins echoes the expansion of “breite,” the whole orchestral phrase also corresponds to the overall melodic arc of “-te mich aus.” The ambiguity of this relationship, and the phrases’ slight but salient rhythmic differences makes measure 19 both compact and restless, as both melodies seem to compete for importance.

The few places in *Vorgefühl* where the orchestral and vocal parts align or come very close to alignment are particularly striking (Fig. 23). In measure 12, the accented brass first overwhelms and rhythmically surrounds “die Fenster” before dramatically enhancing “zittern” (tremble). The first 2 blasts make the sudden emphasis on “zittern” less surprising; in a sense, the

vocal line seems to catch on to the importance of this moment by responding to the orchestral emphasis.

The image shows a musical score for measures 11-12. The top staff is the vocal line, and the bottom two staves are the piano accompaniment. The lyrics are: "sanft und in den Ka-mi-nen ist Stil-le; die fen-ster zit-tern noch". The vocal line has a triplet of eighth notes circled in the final measure. The piano accompaniment features a tremolo in the right hand (labeled "tr.#") and a forte (f) dynamic. The left hand has a forte piano (fp) dynamic. There are several annotations, including a circled area in the piano right hand and a circled area in the piano left hand.

Fig. 23, m. 11-12

Rhythmically, while the sounding of “zittern” and the orchestral blasts are very close together, they are off-set just enough to be restless, or rhythmically “trembling.”

While the rhythmic processes of *Vorgefühl* are more difficult to describe in terms of a single concept, such as expansion and contraction, the feelings of rhythmic unrest, echoing and prediction arise just as saliently out of the interchange of gestures.

Conclusion

Although it is acknowledged that music is not its score but what is heard and experienced, it is not so widely acknowledged that these aesthetic experiences of music are themselves analyzable. This division between representation and event has resulted in a corresponding theoretical division between meter and rhythm. By entrusting the comprehension of rhythmic processes to an intuition that runs deeper than the intellect, we open up a world of music theory that allows for the ineffable in musical experience. In the particular case of rhythm, by circumventing the confines of replicable metrical Gestalts, we make available to ourselves an infinitely wider array of metrical formings and rhythmic processes. The acceptance of musical indeterminacy requires us to explain what we heard rather than what we are “supposed” to hear.

The results of this change in perspective with regards to issues of rhythm and meter in music are readily apparent in the analysis of dense, complex music that seems to push the boundaries of the conventional idea of meter beyond its limits. In examining the rhythmic unfolding of Schoenberg’s Opus 22, we have seen ways in which durational relationships and their changes affect the perceived pulse. The processes of each of the three songs (*Alle, Welche dich Suchen, Mach mich zum Wächter deiner Weiten, and Vorgefühl*) are different, and create a rhythmic profile that is unique and appropriate to the setting of each particular text. In *Alle, Welche dich Suchen*, changing durational relationship create feelings of rhythmic expansion and contraction, as the poet strains in seeking after God. *Mach mich zum Wächter deiner Weiten* shows a process of escalating widenings that gradually challenges the established pulse, expressing the indefinite vastness that the poet wishes to oversee. The last song, *Vorgefühl*, creates feelings of rhythmic unrest through off-beat echoes and call and response gestures between the voice and orchestra, as the poet has a sense of something coming, but does not yet

know what it is. These descriptive articulations of a piece's rhythmic flow arise out of a listening experience, which can then be examined in detail to access the specifics of the musical event that constitutes the forming that was heard holistically.

By analyzing the rhythmic in musical works in a way that admits of the particularity of every event as it unfolds, musical meter is brought to life. It is no longer a necessary evil that allows the concrete description of a musical object, but a partner in the aesthetic experience of music's interaction with, indeed, creation of, time.

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